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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,121	11/18/2003	Atsushi Otake	62807-150	2752
<div>7590 07/16/2007 MCDERMOTT, WILL &amp; EMERY 600 13th Street, N.W. Washington, DC 20005-3096</div>			<div>EXAMINER VERDI, KIMBLEANN C</div>	
			<div>ART UNIT 2194</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 07/16/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/715,121	Applicant(s) OTAKE, ATSUSHI	
	Examiner Kacy Verdi	Art Unit 2194	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*WILLIAM THOMSON*  
PERVISORY PATENT EXAMINER

**Attachment(s)**

- |                                                                                                                                        |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>March 1, 2004</u> . | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

This office action is in response to the Application filed on November 18, 2003. Claims 1-10 are pending in the current application.

#### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:
  - a. reference characters "23" and "33" have both been used to designate REVISED Web SERVICE PROG.; and
  - b. reference characters "33" and "30" have both been used to designate database.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 63, 64, 65, 66, and 69, Fig. 18, 704, Fig. 23.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Automatic Program Changing Method for Client Program Interface.

### ***Claim Objections***

5. Claims 2, 5, and 6 are objected to because of the following informalities:
- a. claim 2, line 3, the recitation of "said analysis of the cause of the error" should be "said analyzing a cause of the error";
  - b. claim 5, line 8, the recitation of "said detected change portion" should be "said detected change";
  - c. claim 6, line 6, the recitation of "registering said changed interface" should be "registering the changed interface";
  - d. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1- 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 1 and 6 recite the limitation "said changed client program" in lines 13 and 20, respectively. There is insufficient antecedent basis for this limitation in the claim. Claims 2-5 are rejected since they are dependent upon claim 1.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Application Publication 2004/0100633 A1 to Fearnley et al. (hereinafter Fearnley) in view of United States Patent Application Publication 2004/0133656 A1 to Butterworth et al. (hereinafter Butterworth).

11. As to claim 1, Fearnley teaches the invention substantially as claimed including a method of changing a client program by a computer, comprising the steps of:

transmitting an access request to a server program (RFS 132a, Fig. 3, paragraph [0052]),

detecting (e.g. performing service location activity) a change location of an interface of said server program (result of service location activity, paragraph [0053] and paragraph [0055]) ;

deciding (e.g. parsing) a change portion and a changing scheme of said client program related to said change of said interface to change said client program (parsing through WSDL document, map data from client system's to the intended service providers format, extract location of service, paragraph [0058]); and

replacing (e.g. translate) the client program being currently operated by said changed client program (using the data dictionary, the client system can translate the associated infrastructure data types into actual data requirements and retrieve the data, paragraph [0058]).

Fearnley does not explicitly teach when an error occurs, analyzing a cause of the error, and when the error is caused by change of said interface of said server program (when the web service produces an exception, paragraph [0067]).

However Butterworth teaches when an error (e.g. fault) occurs, analyzing a cause of the error (Fault Processing, Fig. 10C), and when the error is caused by change of said interface of said server program (when the web service produces an exception, paragraph [0067]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the Entry Point Server of Fearnley with the teachings of Autonomous Agents from Butterworth because this feature would have provided a fault processing phase, which defines a special sequence of actions to be performed when the agent receives a SOAP fault from the web service (paragraph [0067] of Butterworth).

12. As to claim 2, Fearnley as modified teaches a client program changing method according to claim 1, wherein said analysis of the cause of the error is made by analyzing contents of a message (e.g. response from Web Service of Butterworth) received from said server program when the error occurs (fault processing phase, which defines a special sequence of actions to be performed when the agent receives a SOAP fault from the web service (paragraph [0067] of Butterworth).

13. As to claim 6, Fearnley teaches the invention substantially as claimed including a method of changing an interface between a client and a server in a client/server system, comprising the steps of:

- changing said interface due to a revision of a server program in a server system (latest version of data dictionary, paragraph [0056]);

- registering said changed interface in a location accessible from a client system (UDDI compliant location service, paragraph [0053]-[0054]);

- causing a computer in the client system to perform the following operation including the steps of:

- transmitting an access request to the server program (RFS 132a, Fig. 3, paragraph [0052]);

- deciding (e.g. performing service location activity) a change location of said interface of the server program (parsing through WSDL document, map data from client system's to the intended service providers format, extract location of service, paragraph [0058]);

deciding (e.g. parsing) a change portion and a changing scheme of a client program related to the change of said interface to change said client program (parsing through WSDL document, map data from client system's to the intended service providers format, extract location of service, paragraph [0058]); and

replacing (e.g. translate) the client program being currently operated by said changed client program (using the data dictionary, the client system can translate the associated infrastructure data types into actual data requirements and retrieve the data, paragraph [0058]).

Fearnley does not explicitly teach when an error occurs, analyzing a cause of the error, and when the error is caused by change of said interface of said server program.

However Butterworth teaches when an error (e.g. fault) occurs, analyzing a cause of the error (Fault Processing, Fig. 10C), and when the error is caused by change of said interface of said server program (when the web service produces an exception, paragraph [0067]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the Entry Point Server of Fearnley with the teachings of Autonomous Agents from Butterworth because this feature would have provided a fault processing phase, which defines a special sequence of actions to be performed when the agent receives a SOAP fault from the web service (paragraph [0067] of Butterworth).

14. As to claims 7, 8, and 9, these claims are rejected for the same reason as claim 1, see the rejection to claim 1 above.



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15. As to claim 10, Fearnley teaches a client/server system according to claim 9, wherein said interface of said server program is defined by a WSDL file (paragraph [0055]), and said registry is a UDDI registry (paragraph [0054]).

16. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Application Publication 2004/0100633 A1 to Fearnley et al. (hereinafter Fearnley) in view of United States Patent Application Publication 2004/0133656 A1 to Butterworth et al. (hereinafter Butterworth) as applied to claim 1 above, and further in view of United States Patent Application Publication 2004/0117199 A1 to Fremantle et al. (hereinafter Fremantle).

17. As to claim 3, teaches Fearnly as modified by Butterworth teaches the invention substantially as claimed including client program changing method according to claim 1, wherein said interface of said server program is defined by a WSDL file (SDL document which specifies how to programmatically access the requested web service, paragraph [0055]).

Fearnly as modified by Butterworth does not explicitly teach said detection of said change location of said interface is made by comparing an unrevised WSDL file.

However Fremantle teaches said detection of said change location of said interface is made by comparing an unrevised WSDL file (e.g. WSDL 1) with a revised WSDL file (e.g. modified) (WSDL1 is provided to the gateway (300) by server (200), however in other embodiments the gateway can know of WSDL1, for example, based on configuration information (for example containing either the URL location of the WSDL file or UDDI lookup information), as a result, the Gateway should import the

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WSDL documents and use them to generate a new (modified) WSDL documents which may then be published to one or more UDDI directories, paragraph [0055]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the Entry Point Server of Fearnly as modified by Butterworth with the teachings of a Gateway from Fremantle because this feature would have further provided a mechanism for creating a modified document enabling the client to access the target service via the gateway using one of the channels for which details were added to the modified document (paragraph [0006] of Fremantle).

18. As to claim 4, Fearnly teaches a client program changing method according to claim 3, wherein said decision of said change portion and said changing scheme of said client program is made on the basis of a comparison result of said WSDL files (from the WSDL document, the client system can extract the location of the service and the MEP (message exchange pattern) specified by the service, paragraph [0058]).

19. As to claim 5, Fearnley teaches a client program changing method according to claim 3, wherein the step of changing said client program includes the steps of:

taking said revised WSDL file in source codes of said client program (from the WSDL document, the client system can extract the location of the service and the MEP (message exchange pattern) specified by the service, paragraph [0058]);

correcting source code portion of said client program related to said detected change portion of said interface parsing through the WSDL document 302, Fig. 4 and using the data dictionary 114, Fig. 4 to map data from the client system's data item

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content to data that the intended service provider can understand, paragraph [0058]);  
and


using said corrected source code portion to prepare an executable client program  
(using the data dictionary, the client system can translate the associated infrastructure  
data types into actual data requirements and retrieve the data, paragraph [0058]).

***Conclusion***

20. The prior art made of record on the accompanying PTO-892 and not relied upon,  
is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Kacy Verdi whose telephone number is (571) 270-1654.  
The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, William Thomson can be reached on (571) 272-3718. The fax phone  
number for the organization where this application or proceeding is assigned is 571-  
273-8300.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 2, 2007  
KV